

IN THE CLAIMS

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1 1. (original) A method for use in a transmitter, the method comprising the steps of:
2 processing N program channels into M clusters of program channels, such that at
3 least k programs channels are grouped in each cluster, where $k > 1$; $M > 1$, and $(M)(k)$
4 $\leq N$; and
5 transmitting a transmission signal representing the M clusters and including cluster
6 synchronization information for each of the M clusters such that the cluster
7 synchronization information for each cluster is identical.

1 2. (original) The method of claim 1, wherein the identical cluster synchronization
2 information is represented by a maximal length PN (pseudo-random number)
3 sequence.

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1 3. (original) The method of claim 2 further comprising the step of using an eight-
2 stage linear feedback shift register for generating the maximal length PN sequence
3 prior to the transmitting step.

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1 4. (original) A method for use in a receiver, the method comprising the steps of:
2 receiving a signal representing (a) M clusters of program channels, such that at
3 least k programs channels are grouped in each cluster, where $k > 1$; $M > 1$, and (b)
4 cluster synchronization information for each cluster of the M clusters, wherein the
5 cluster synchronization information for each cluster of the M clusters is identical; and
6 using the received cluster synchronization information for identifying individual
7 ones of the M clusters of program channels.

1 5. (original) The method of claim 4, wherein the identical cluster synchronization
2 information is represented by a maximal length PN (pseudo-random number)
3 sequence.

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1 6. (currently amended) The method of claim 4, wherein the using step includes the
2 steps of:
3 correlating cluster synchronization information for each cluster for providing
4 correlation data for each cluster; and
5 comparing phases of the correlation data for each cluster for identifying the
6 individual ones of the M cluster of program channels.

7. (cancelled)

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1 8. (original) The method of claim 6 further comprising the step of combining the
2 correlation data for each cluster for providing a cluster synchronization signal.

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1 9. (original) A method for use in a receiver, the method comprising the steps of:
2 demodulating a signal to provide a baseband signal representing a transmission
3 frame comprising clusters of data and, for at least two of the clusters, further
4 comprising cluster-specific synchronization data and wherein values of the cluster-
5 specific synchronization data is the same for the at least two of the clusters; and
6 using the cluster specific synchronization data to identify individual ones of the
7 clusters of data.

- 1 10. (original) The method of claim 9, wherein the value of the cluster-specific
2 synchronization data, which is the same for the at least two of the clusters, is
3 represented by a maximal length PN (pseudo-random number) sequence.

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1 11. (currently amended) The method of claim 9, wherein the using step includes the
2 steps of:
3 correlating the cluster-specific synchronization data for the at least two clusters for
4 providing correlation data for the at least two clusters; and
5 comparing phases of the correlation data for the at least two clusters for
6 identifying the individual ones of the clusters of data.

12. (cancelled)

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- 1 13. (original) The method of claim 11, further comprising the step of combining the
2 correlation data for the at least two clusters for providing a cluster synchronization
3 signal.

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- 1 14. (original) Transmitter apparatus comprising::
2 a transmission frame assembler for forming a signal representing M clusters of
3 program channels, such that at least k programs channels are grouped in each cluster,
4 where $k > 1$; $M > 1$, and further representing cluster synchronization information for
5 each of the M clusters such that the cluster synchronization information for each
6 cluster is identical; and
7 transmitting the signal.

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- 1 15. (original) The apparatus of claim 14, wherein the identical cluster synchronization
2 information is represented by a maximal length PN (pseudo-random number)
3 sequence.

- 10 14 9
- 1 16. (original) The apparatus of claim 15 further comprising an eight-stage linear
2 feedback shift register for generating the maximal length PN sequence.

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- 1 17. (original) A receiver comprising:
2 means for receiving a signal representing (a) M clusters of program channels, such
3 that at least k programs channels are grouped in each cluster, where $k > 1$; $M > 1$, and
4 (b) cluster synchronization information for each cluster of the M clusters, wherein the
5 cluster synchronization information for each cluster of the M clusters is identical; and
6 means for using the received cluster synchronization information for identifying
7 individual ones of the M clusters of program channels.

- 1 18. (original) The receiver of claim 17, wherein the identical cluster synchronization
2 information is represented by a maximal length PN (pseudo-random number)
3 sequence.

- 1 ¹²19. (currently amended) The receiver of claim ¹¹17, wherein the means for using
2 further comprises:
3 means for correlating cluster synchronization information for each cluster for
4 providing correlation data for each cluster; and
5 means for comparing phases of the correlation data for each cluster for identifying
6 the individual ones of the *M* cluster of program channels.

20. (cancelled)

- 1 ¹³21. (original) The receiver of claim ¹¹17 further comprising a means for combining the
2 correlation data for each cluster for providing a cluster synchronization signal.

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1 22. (original) A receiver comprising;
2 a demodulator, responsive to a signal, that provides a baseband signal representing
3 a transmission frame comprising clusters of data and, for at least two of the clusters,
4 further comprising cluster-specific synchronization data and wherein values of the
5 cluster-specific synchronization data is the same for the at least two of the clusters;
6 and
7 a detector, responsive to the cluster specific synchronization data, for identifying
8 individual ones of the clusters of data.

- 1 23. (original) The receiver of claim 22, wherein the value of the cluster-specific
2 synchronization data, which is the same for the at least two of the clusters, is
3 represented by a maximal length PN (pseudo-random number) sequence.

- 1 ¹⁵24. (currently amended) The receiver of claim ¹⁴22 further comprising a plurality of
2 correlators for correlating the cluster -specific synchronization data for the at least
3 two clusters for providing correlation data for the at least two clusters; and wherein
4 the detector compares phases of the correlation data for the at least two clusters for
5 identifying the individual ones of the clusters of data.

25. (cancelled)

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- 1 ¹⁶26. (original) The receiver of claim ¹⁵24 further comprising a combiner for combining
 - 2 the correlation data for the at least two clusters for providing a cluster
 - 3 synchronization signal.
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